SARAH MILDRED LONG
BRIDGE REPLACEMENT PROJECT

MaineDOT in cooperation with the State of New Hampshire

U.S. Department of Transportation Federal Highway Administration

The Regional River Crossing

Linking Kittery, Maine & Portsmouth, New Hampshire

Planning Board Meeting
Kittery, Maine

September 25, 2014

Jeff Folsom, Project Manager

Design Team

Bridge Design

FIGG | Hardesty&Hanover Joint Venture

Roadway Design

SEBAGO TECHNICS

Geotechnical,Hydraulics

GZA

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Site Plan - Looking Southeast

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Current Alignment

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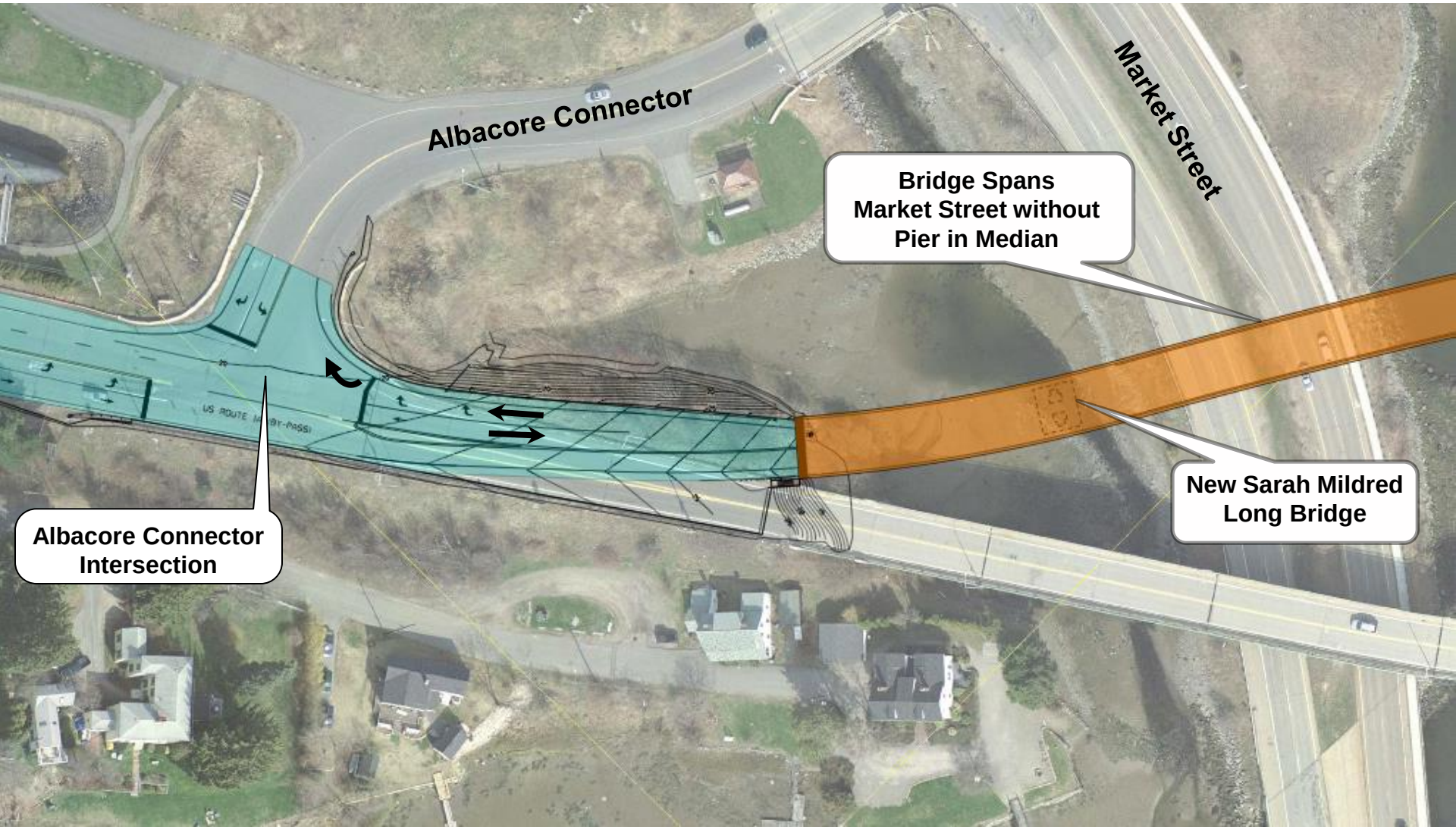
Selected Alignment

Portsmouth Connection



View of Existing Bridge Over Market Street

Rendering of New Bridge Spanning Over Market Street

Kittery Connection –
Signalized Intersection and 1-Way Oak Terrace

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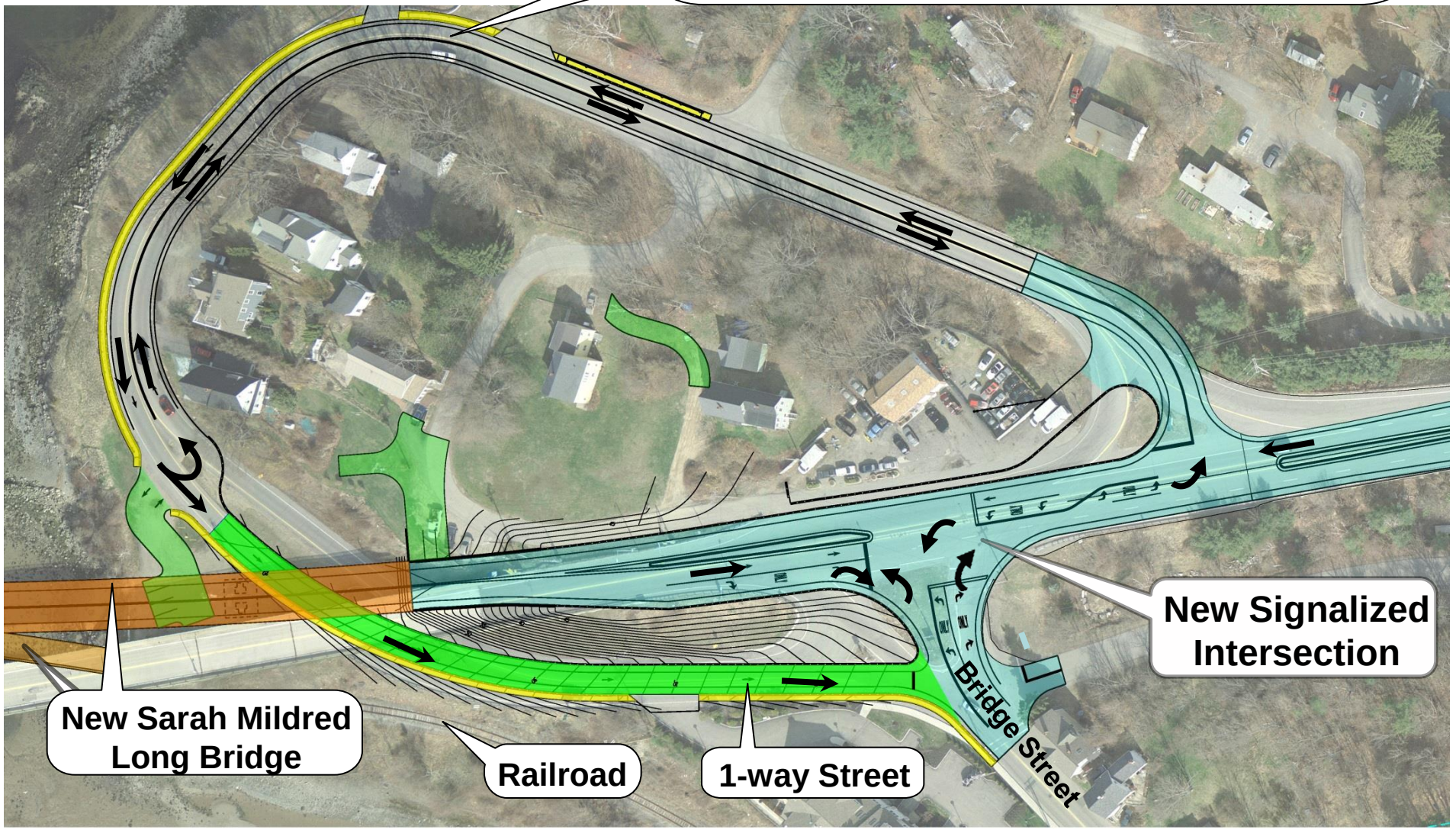

Kittery Connection –
Signalized Intersection and 1-Way Oak Terrace

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BENEFITS of Proposed Design

Retains same Primary Traffic Movements.

Maintains Important Emergency Vehicle Access.

No Bridge Street Dead End.

Least Utility Relocation Impacts.

Create Park Setting under Bridge.

Improved Safety for Pedestrian Access from Oak Terrace to Downtown Kittery.

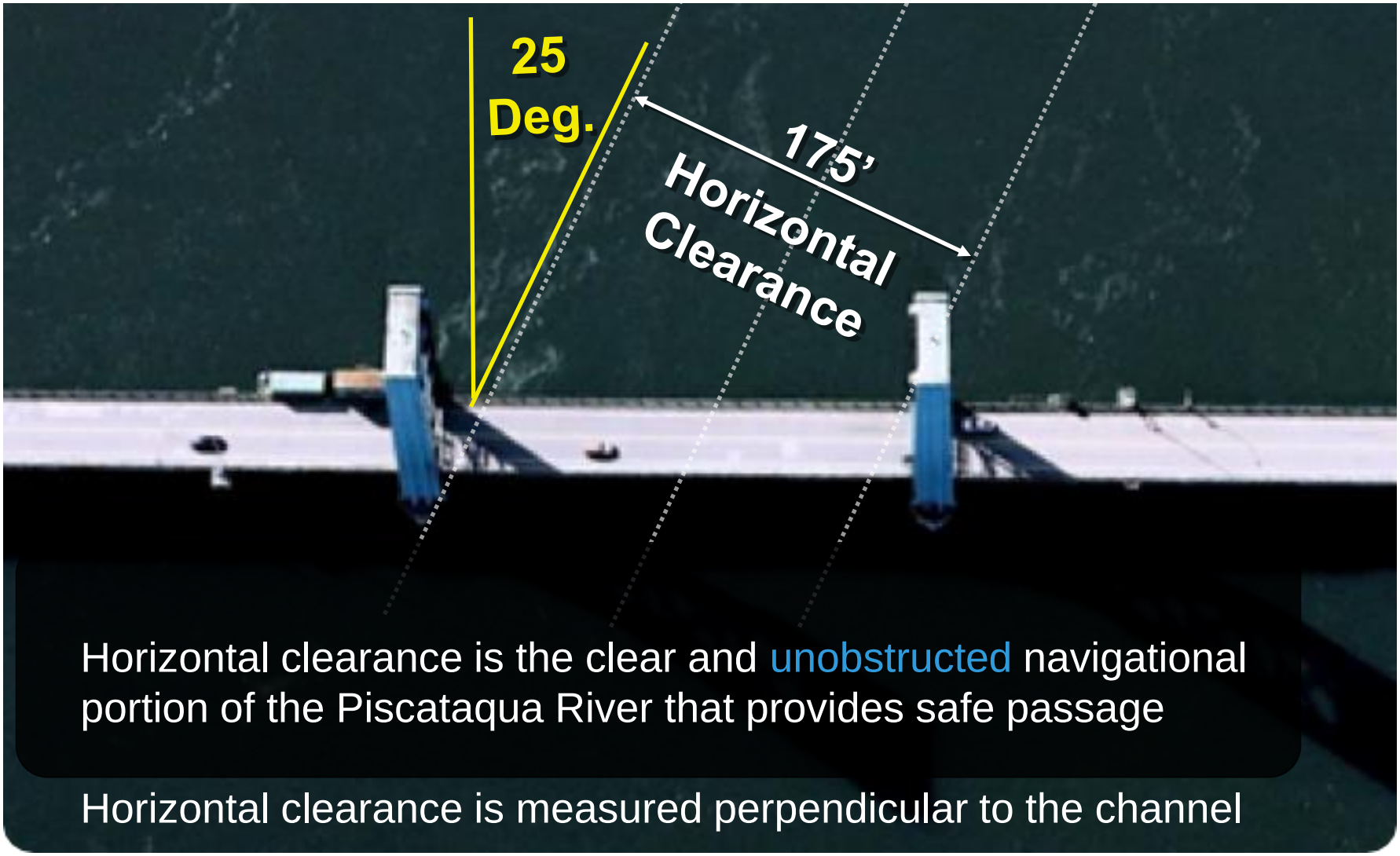
Addresses Adjacent Property Owner Considerations.

Less Through-Traffic, Improves quiet Neighborhood setting.

Minimal Retaining Walls.

Best Overall Costs.

Navigation Span
Existing Clearance



Horizontal clearance is the clear and unobstructed navigational portion of the Piscataqua River that provides safe passage

Horizontal clearance is measured perpendicular to the channel

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Key Project Challenges

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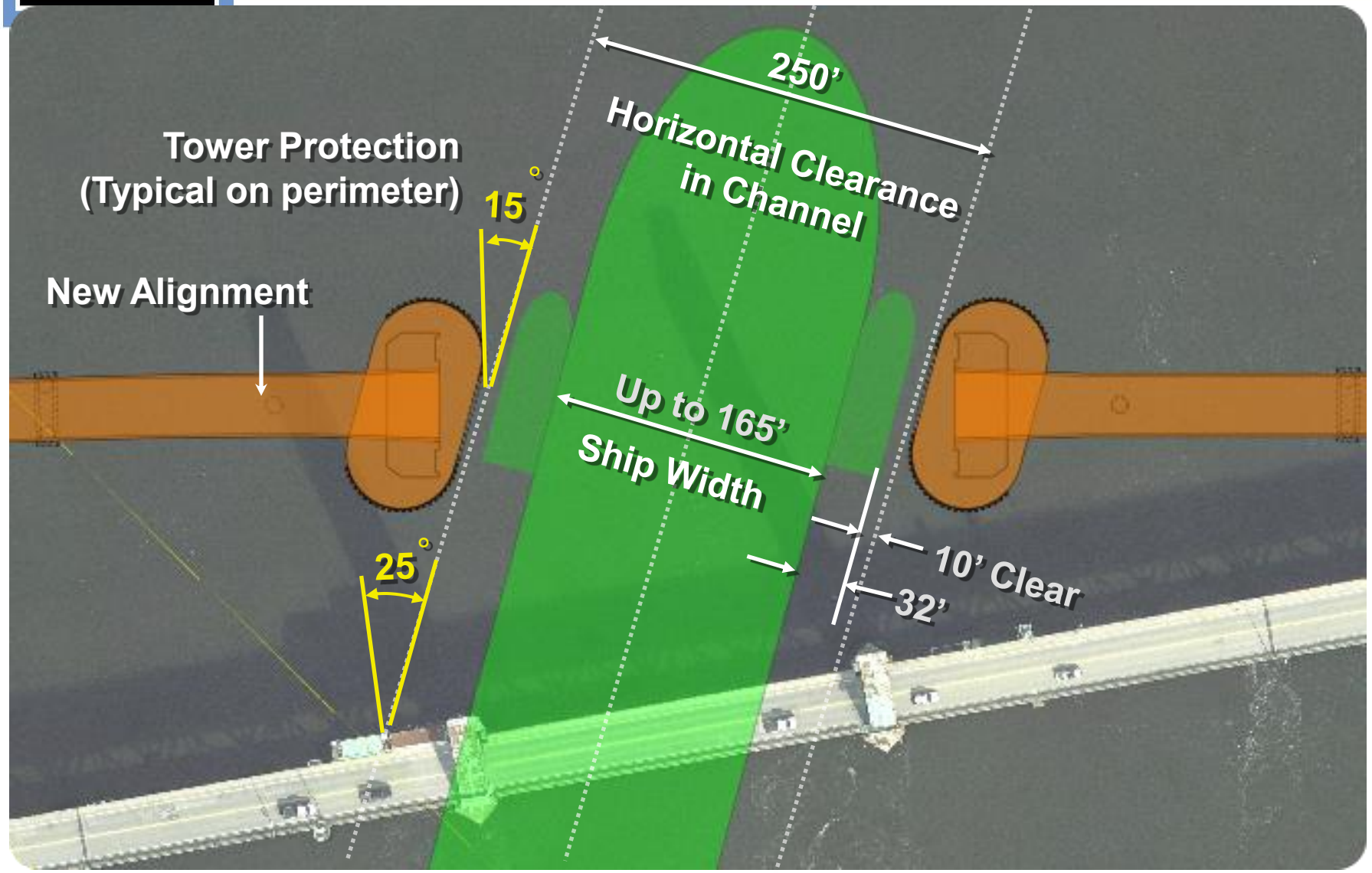
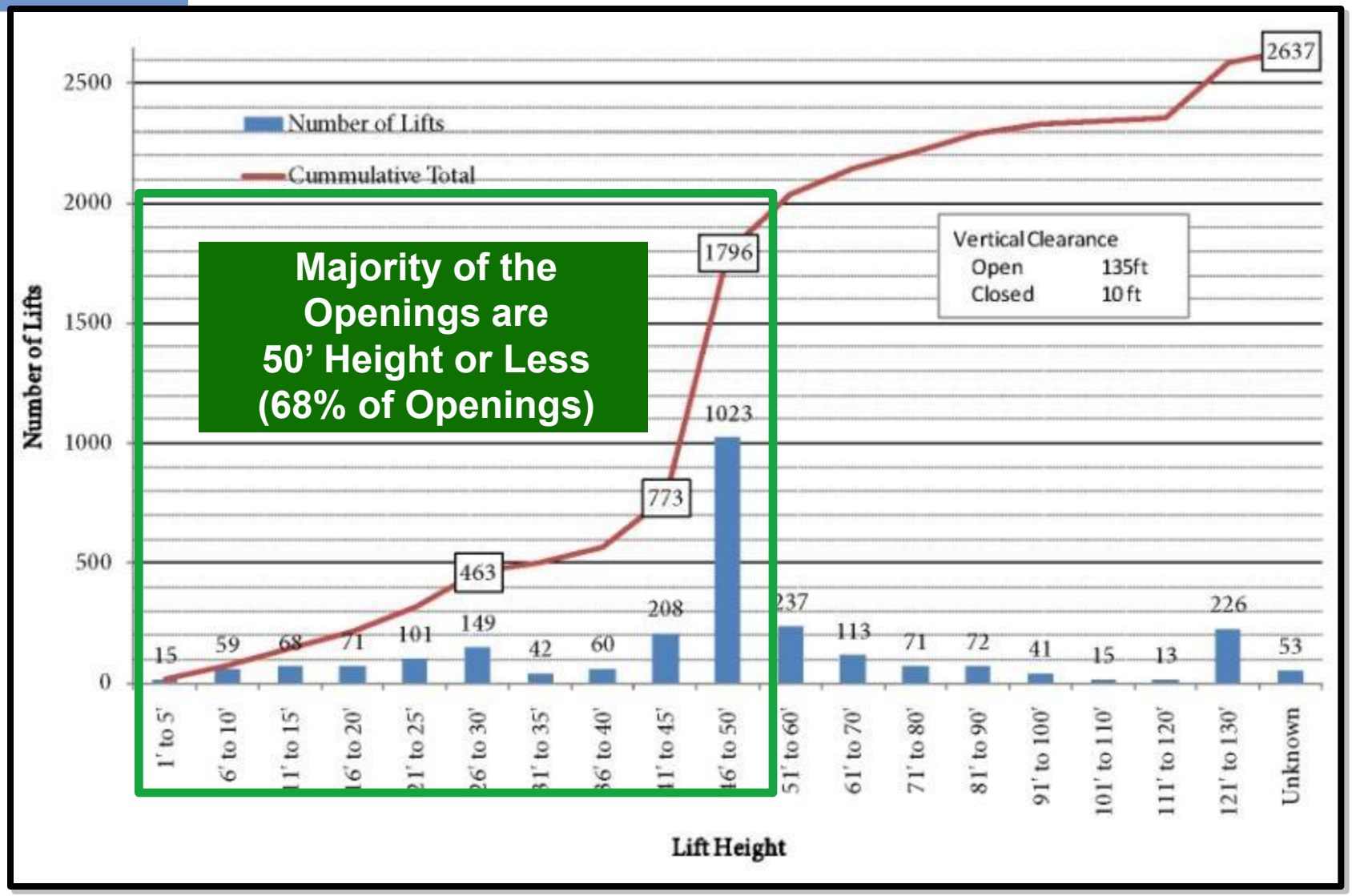
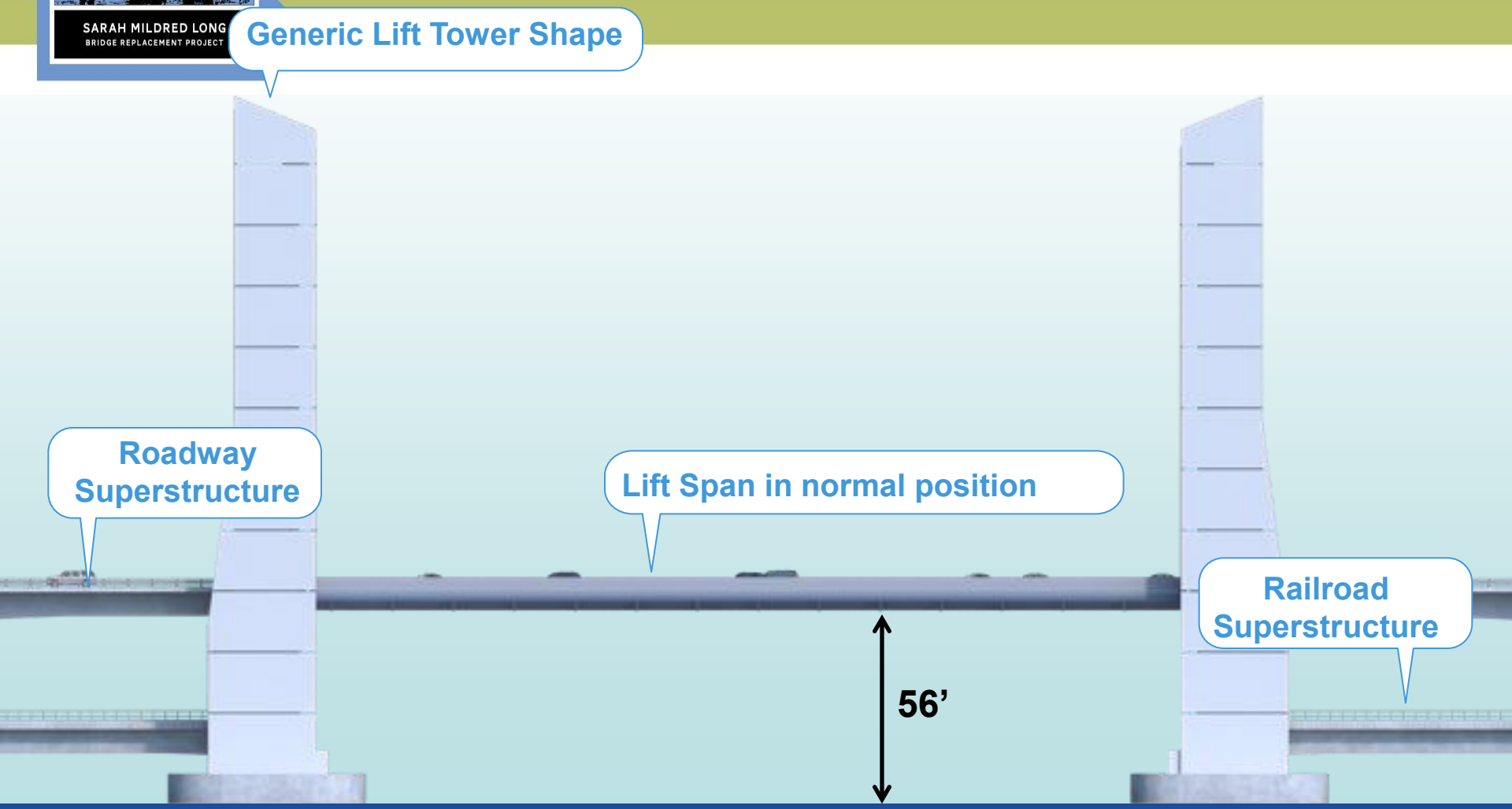
New Bridge
Proposed Clearance



Reduce Number of Bridge Openings

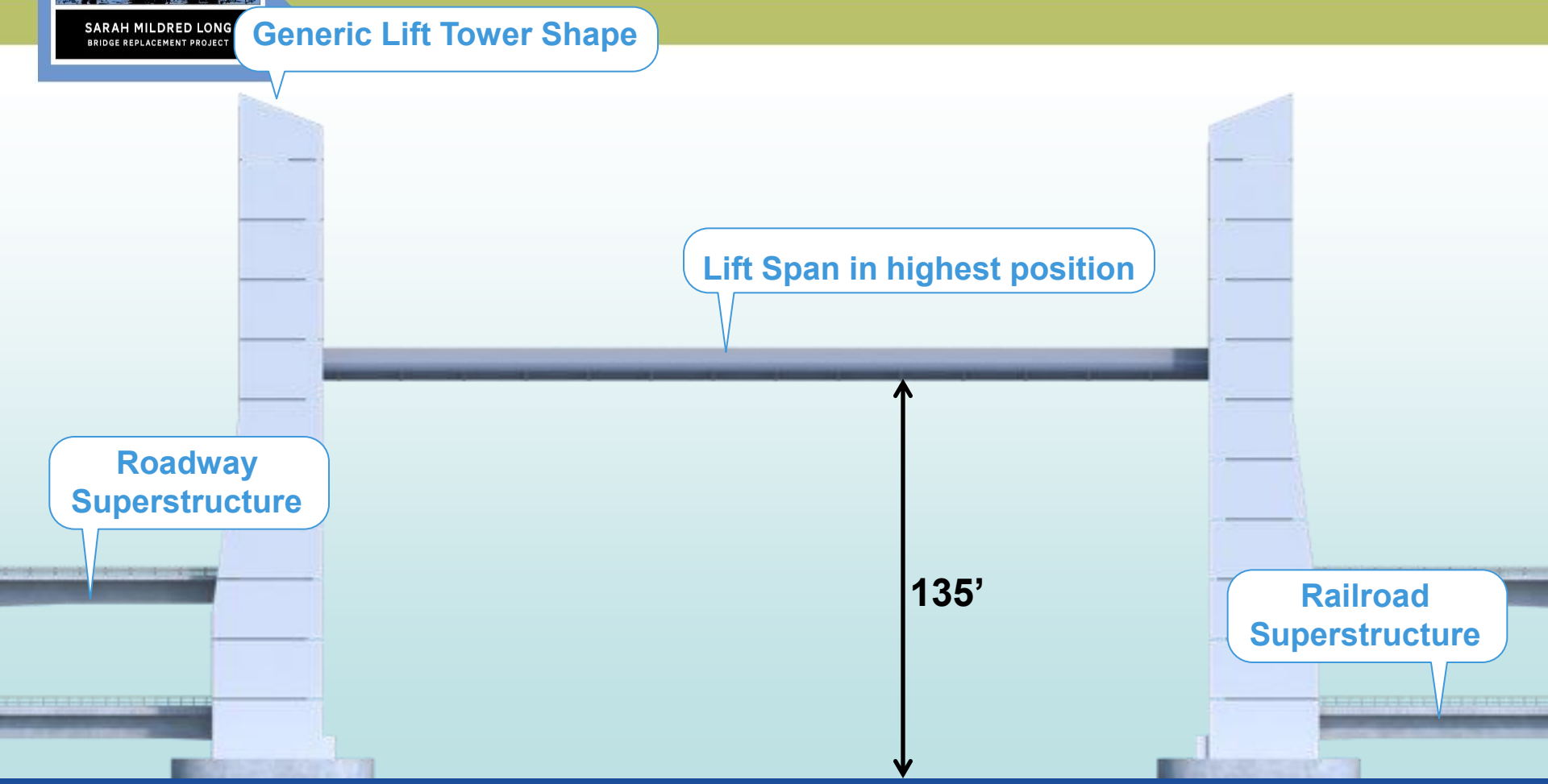


Proposed Typical Clearances



Lift Span in typical configuration

Proposed Typical Clearances

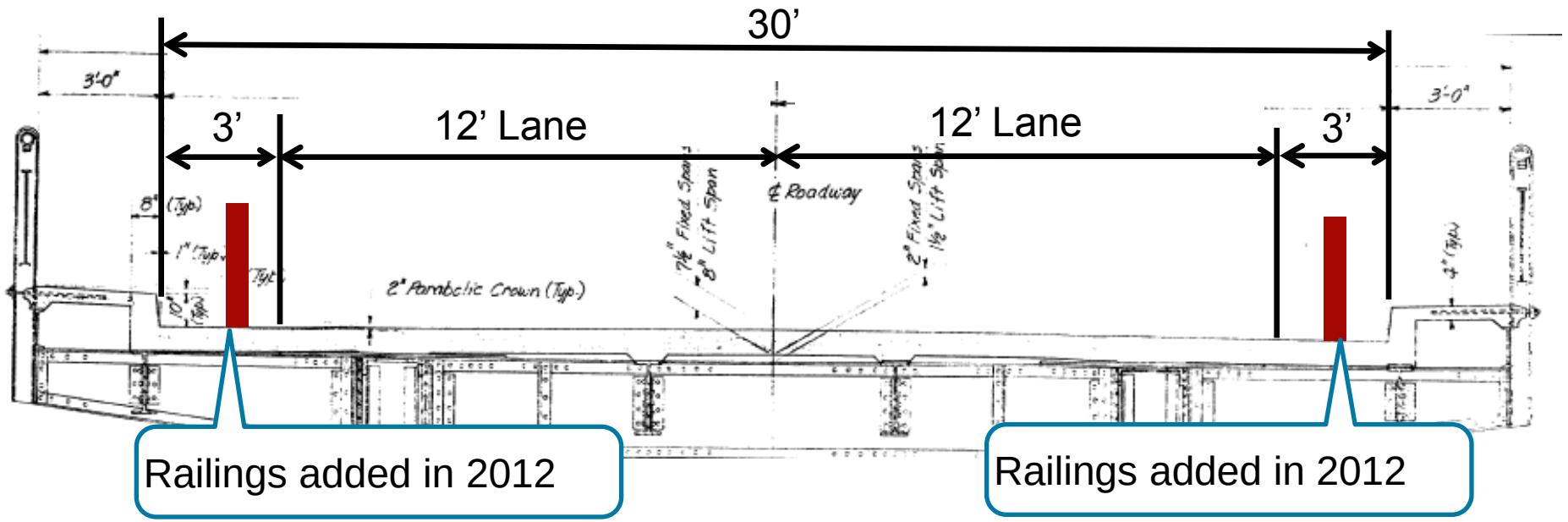


Lift Span in highest configuration for tall vessels to pass under

Proposed Typical Clearances

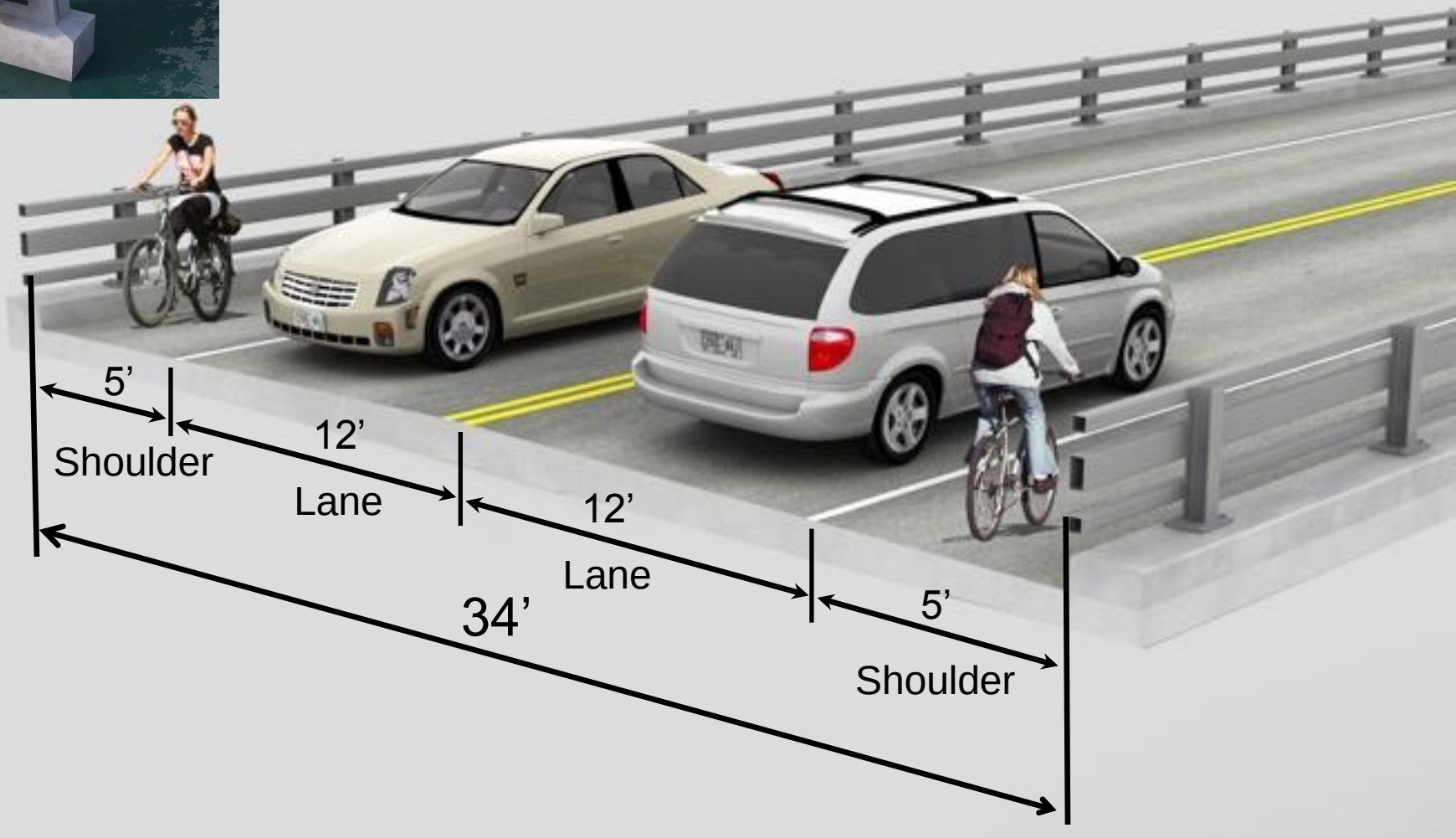
Lift Span lowered to railroad crossing configuration

Existing Cross-Section

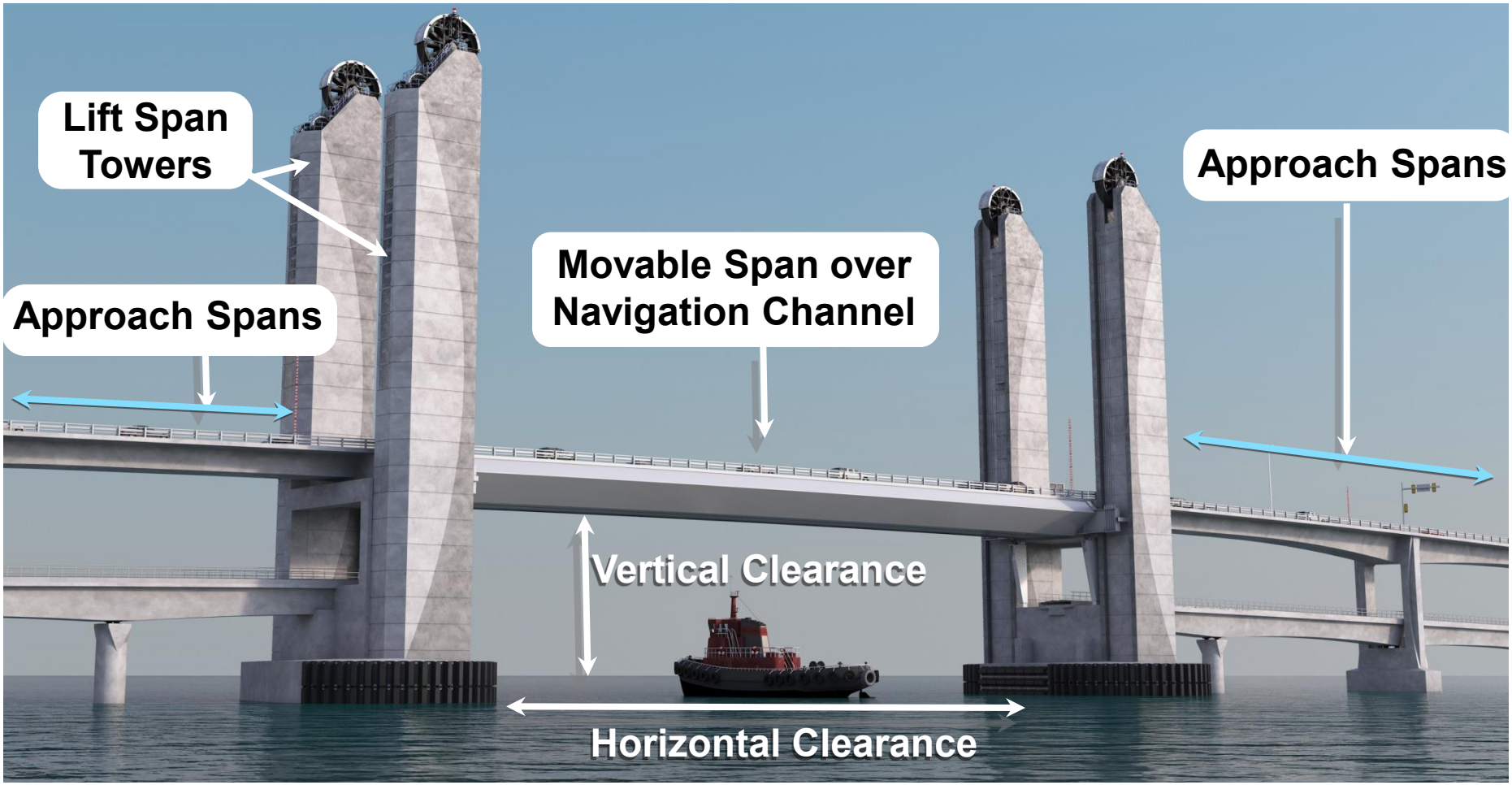


Proposed Cross-Section

Vehicle traffic is on bridge above the train

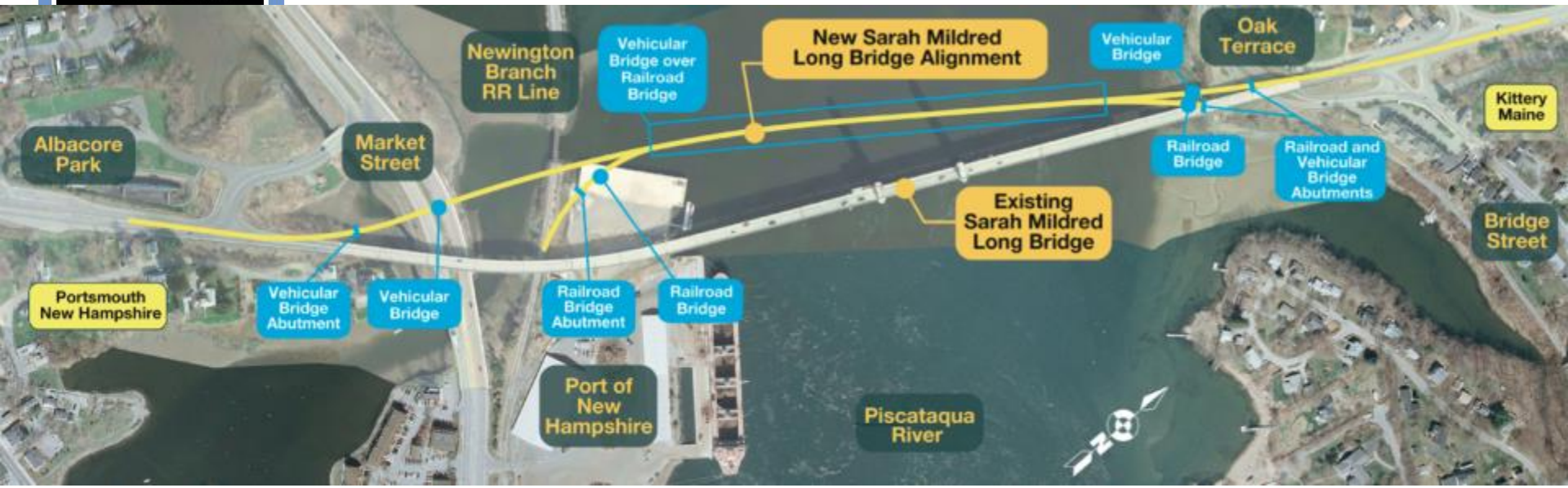


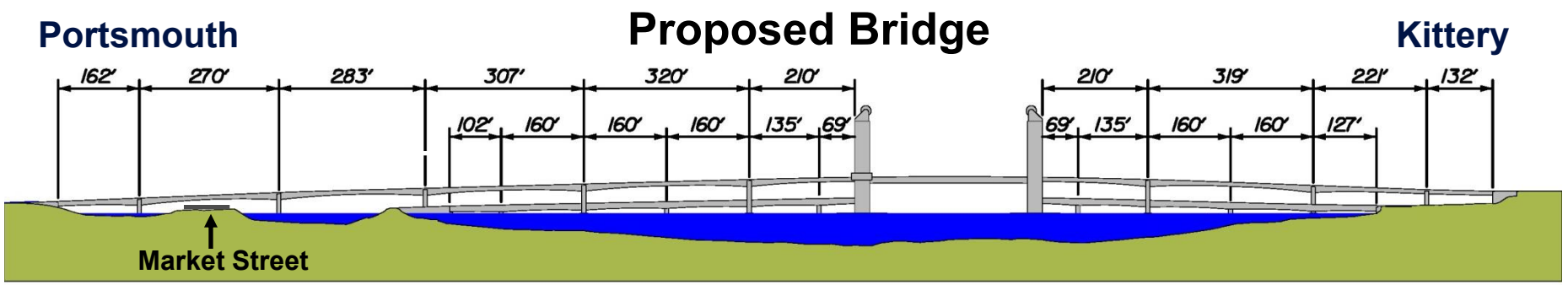
Bridge Configuration



Schematic Illustration

Proposed Span Arrangement



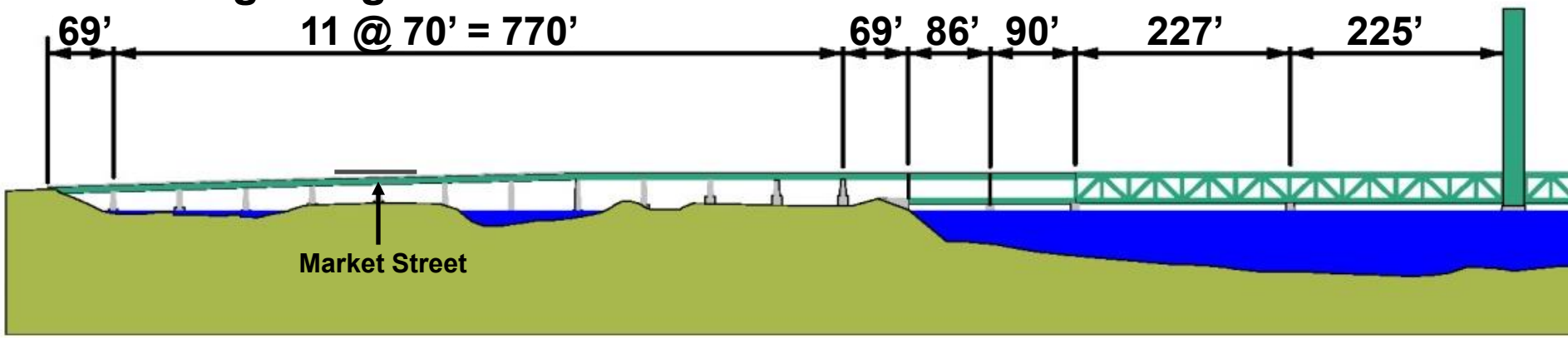


2,432’ Vehicular Approach Bridge
1,435’ Railroad Approach Bridge Underneath
300’ Movable Span

Portsmouth Side -
Span Arrangement Comparison

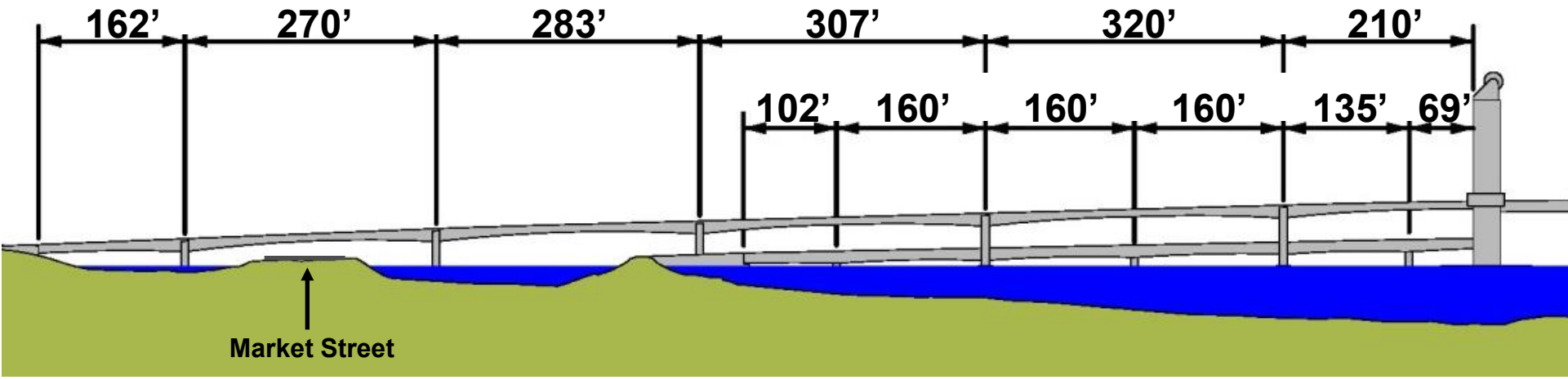
Existing Bridge

16 Total Piers



Proposed Bridge – has 8 fewer Piers

5 Vehicular Piers
3 Railroad Piers
8 Total Piers



Kittery Side -
Span Arrangement Comparison

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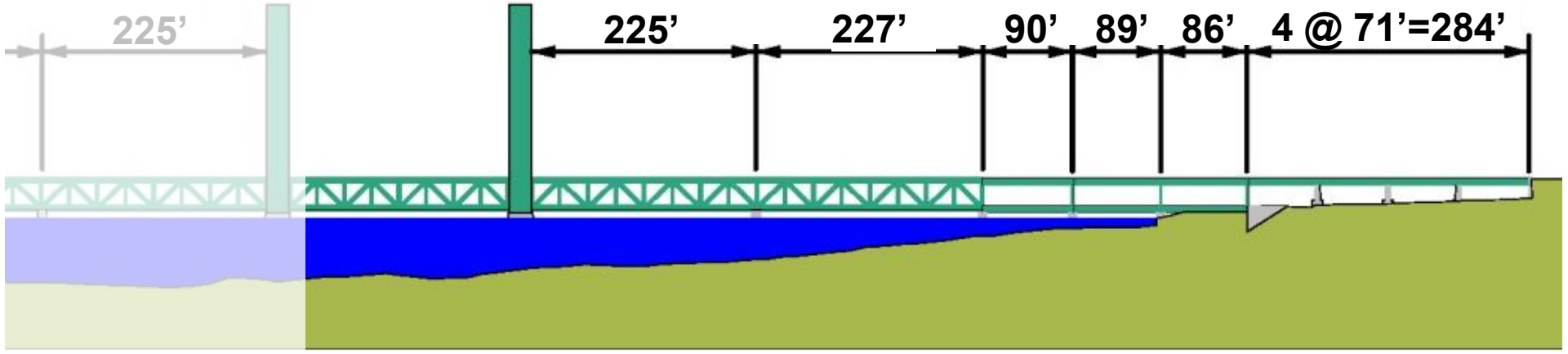
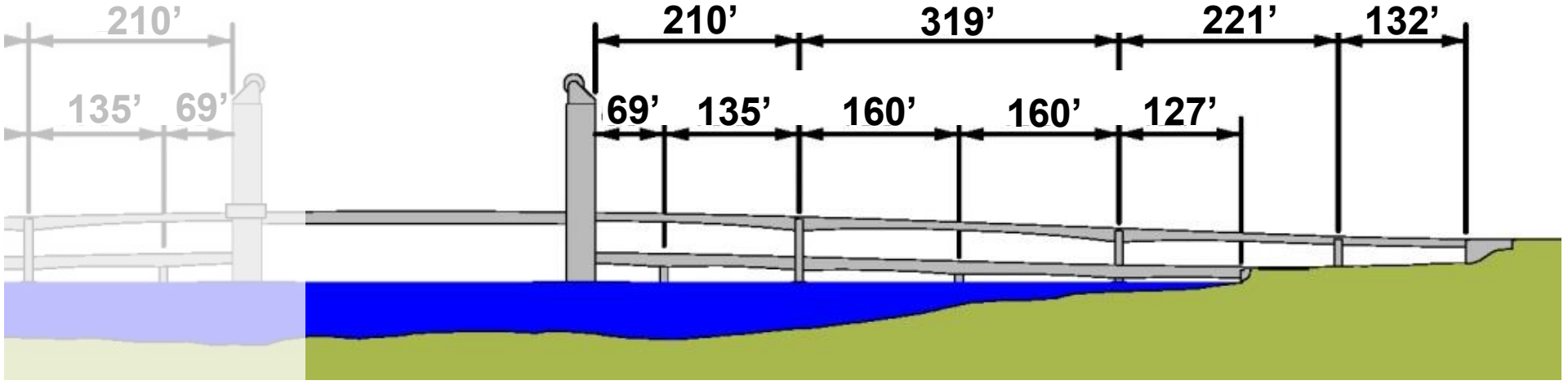
Existing Bridge

8 Total Piers



Proposed Bridge – has 3 fewer Piers

3 Vehicular Piers
2 Railroad Piers
5 Total Piers



Approach Bridge Superstructure Type

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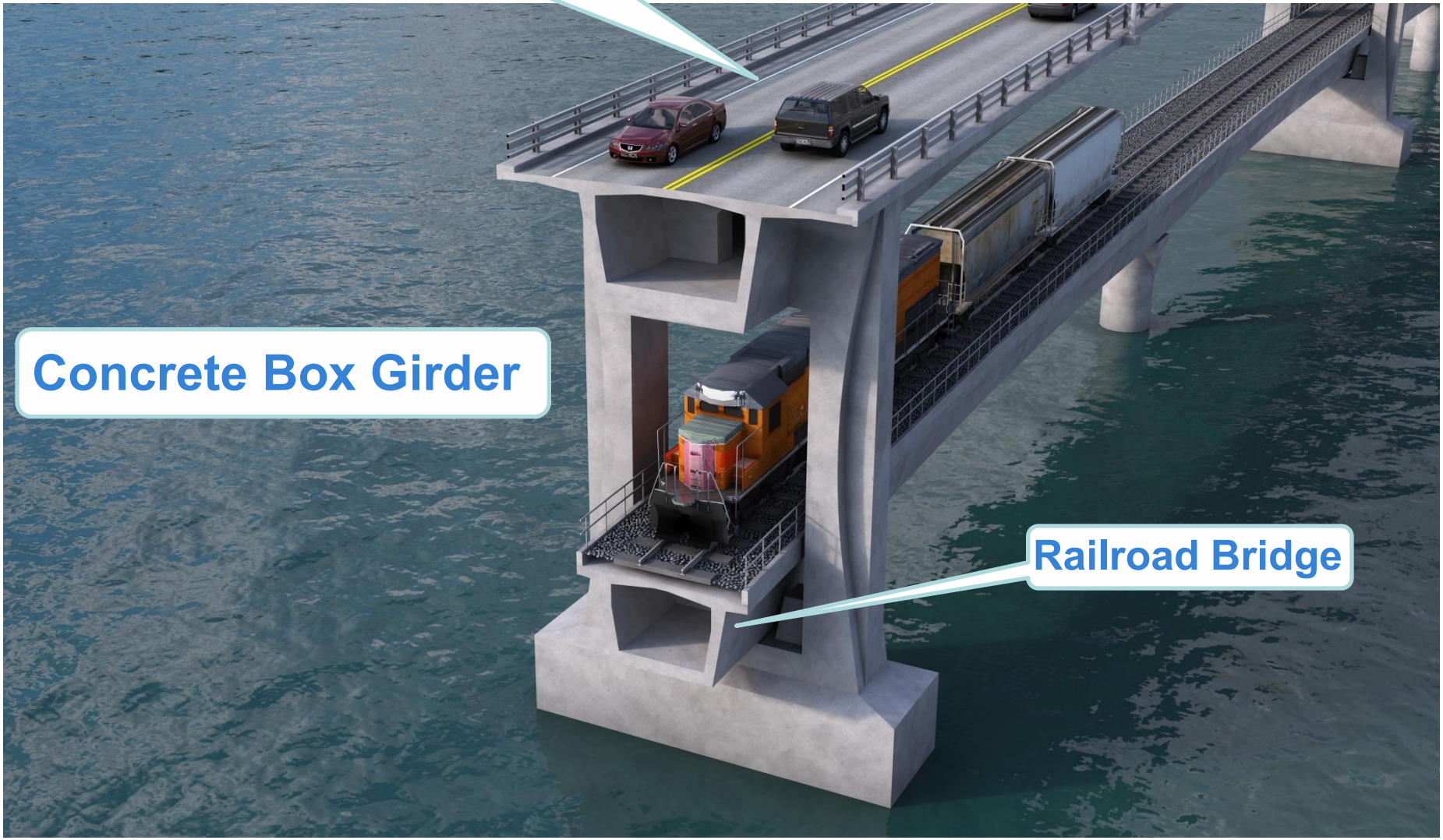
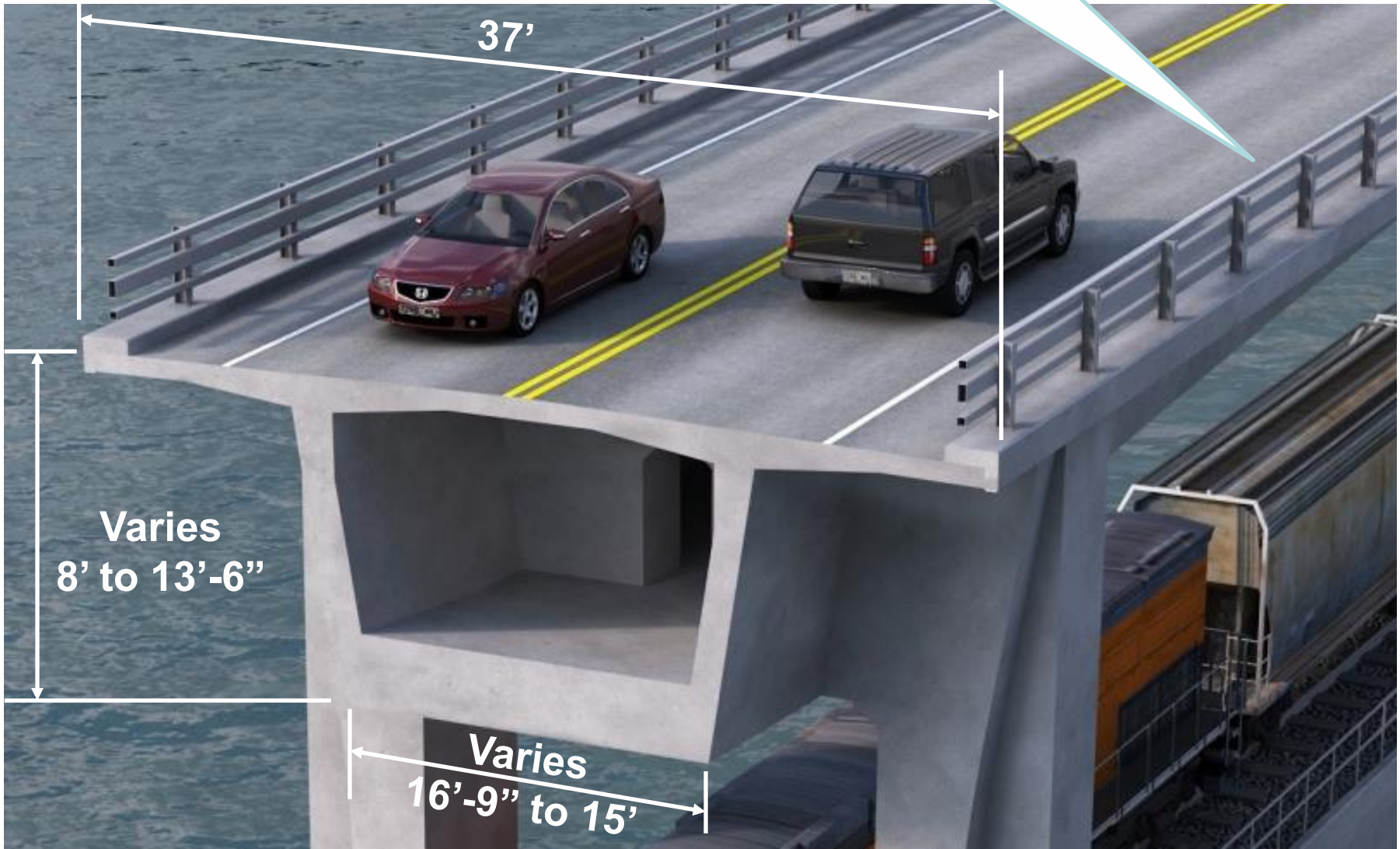
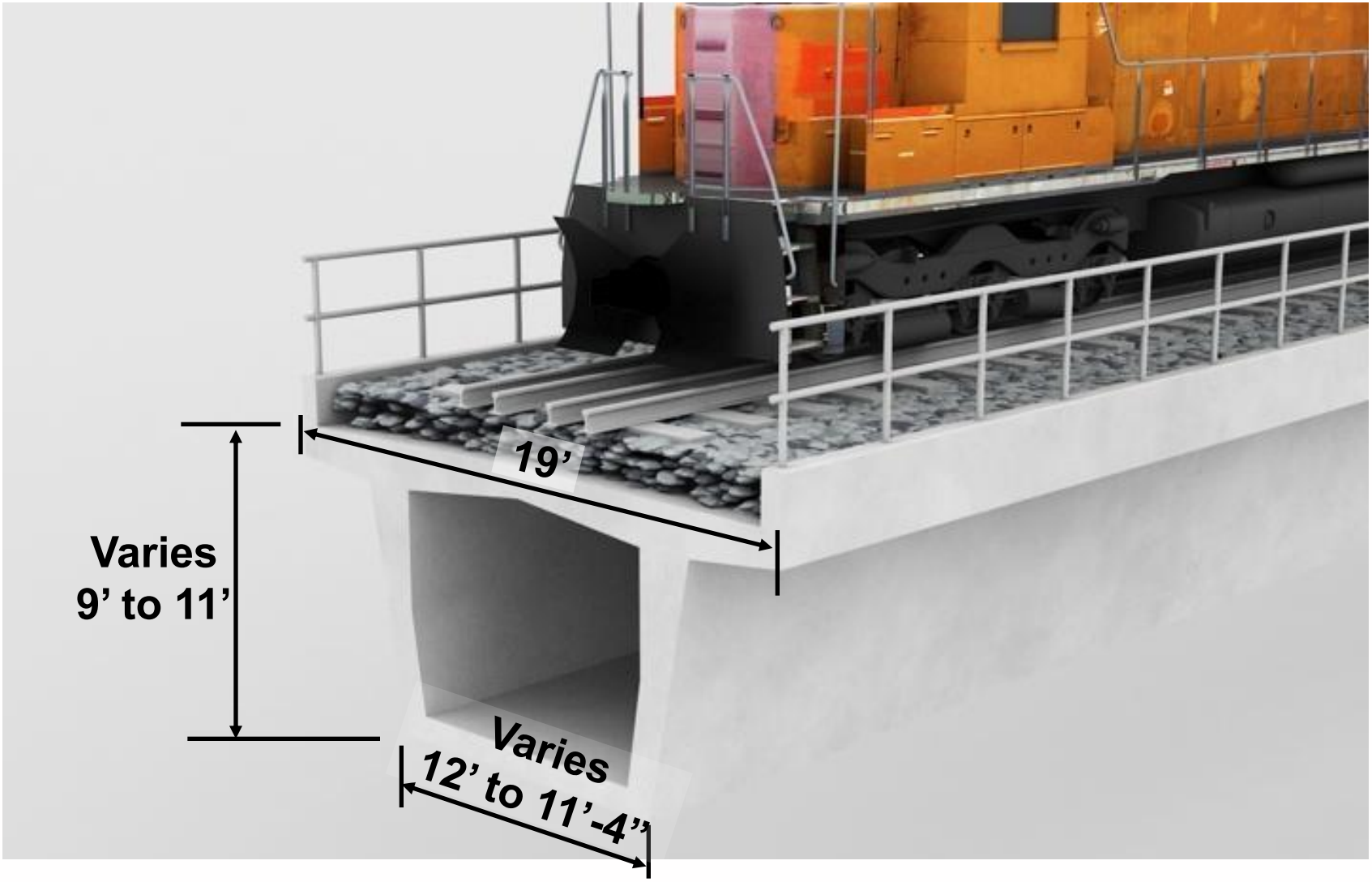


Approach Vehicular Bridge Spans

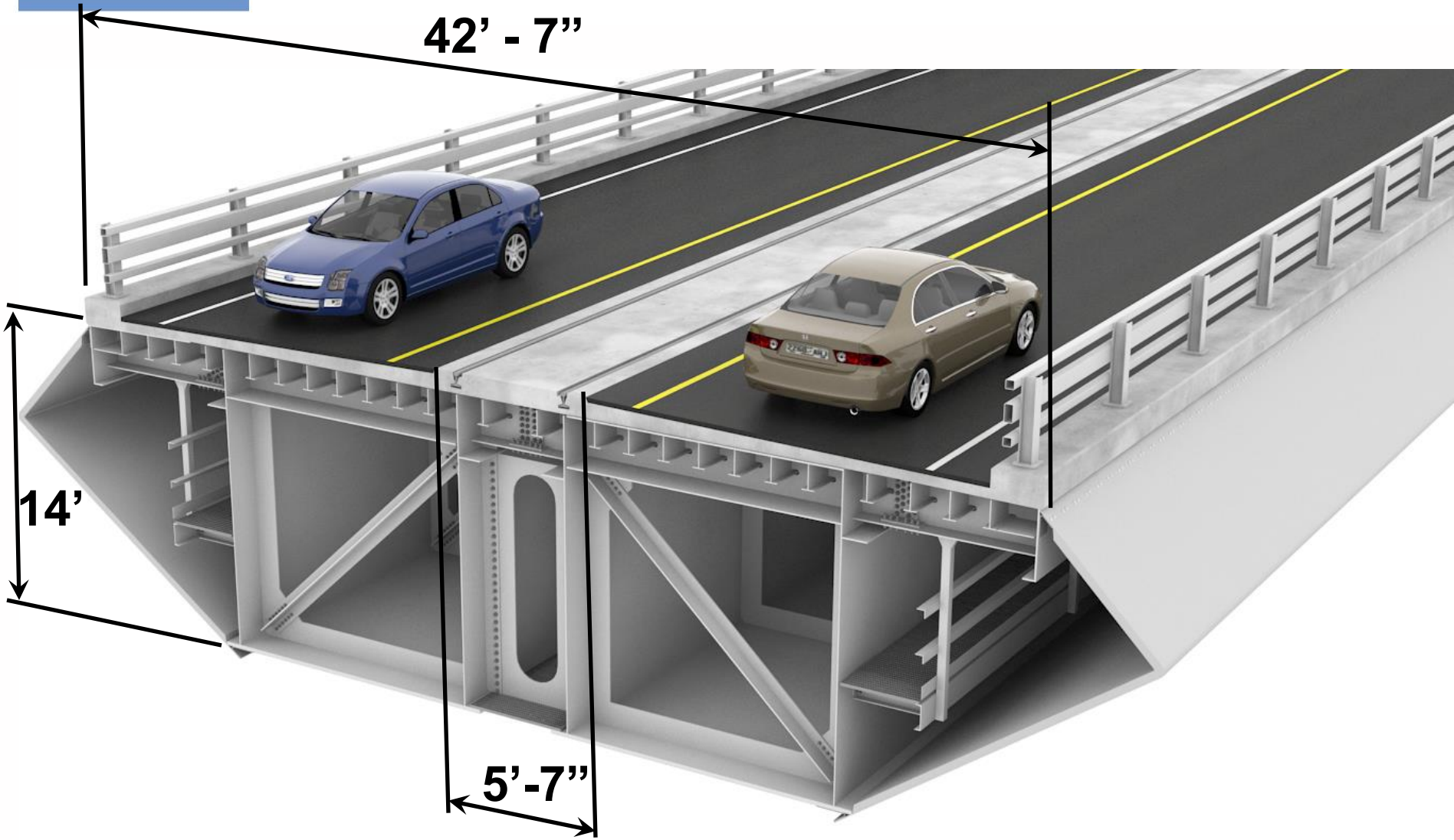


Approach Railroad Bridge Spans

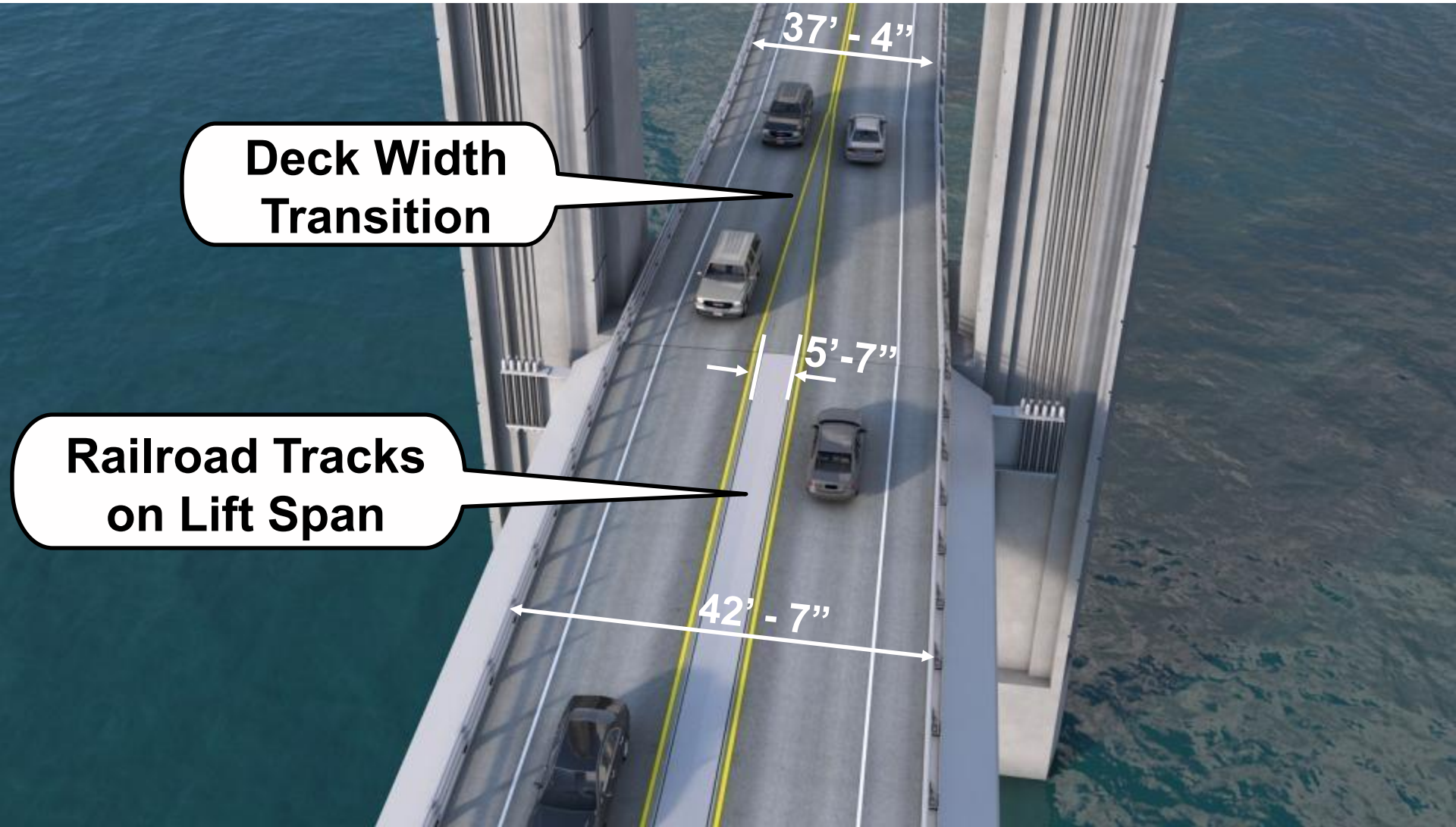


Lift Span with Vehicles

Railroad Tracks on Deck of Lift Span



Approach Bridge & Lift Span
in Normal Vehicular Position

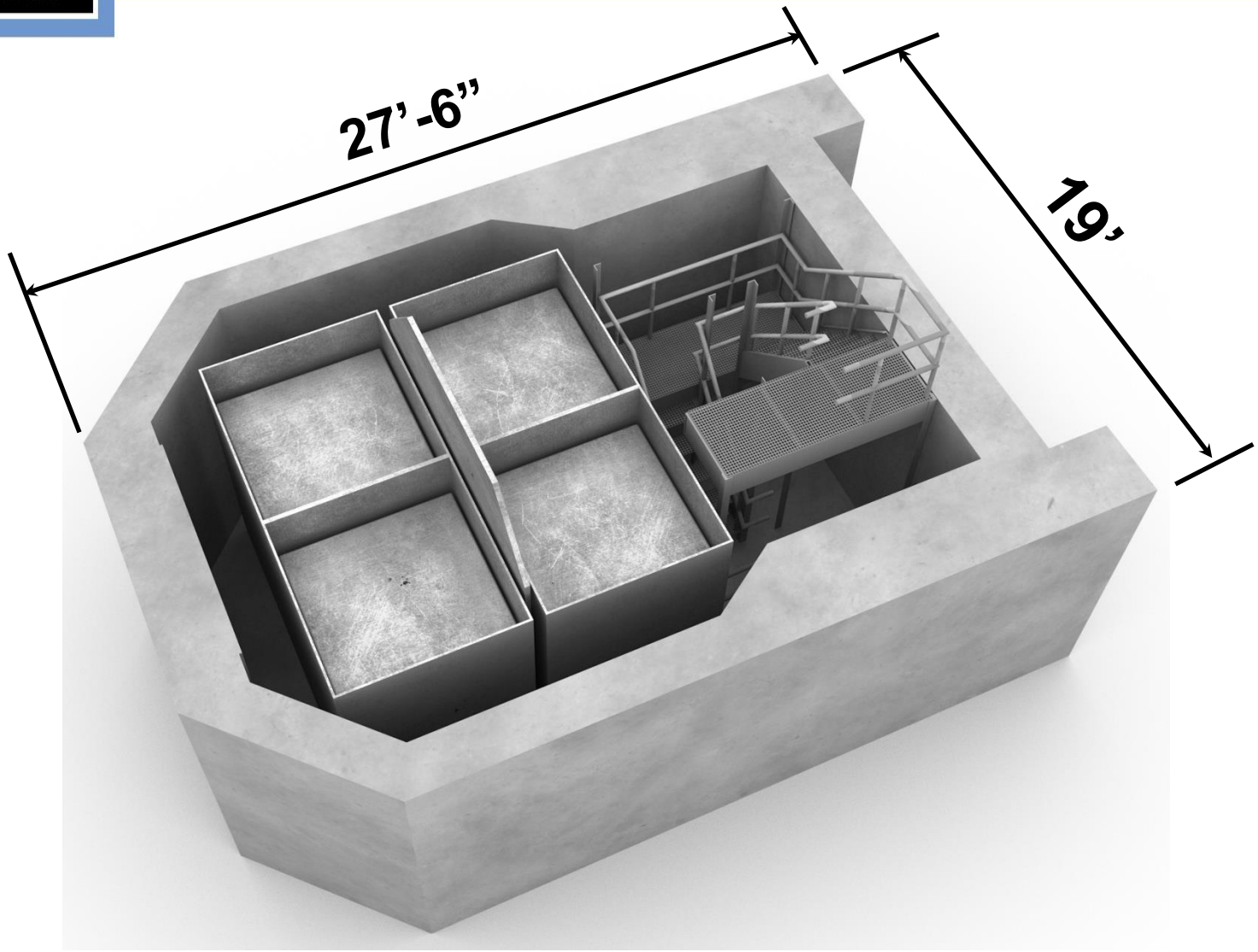


Design Workshop Community Input

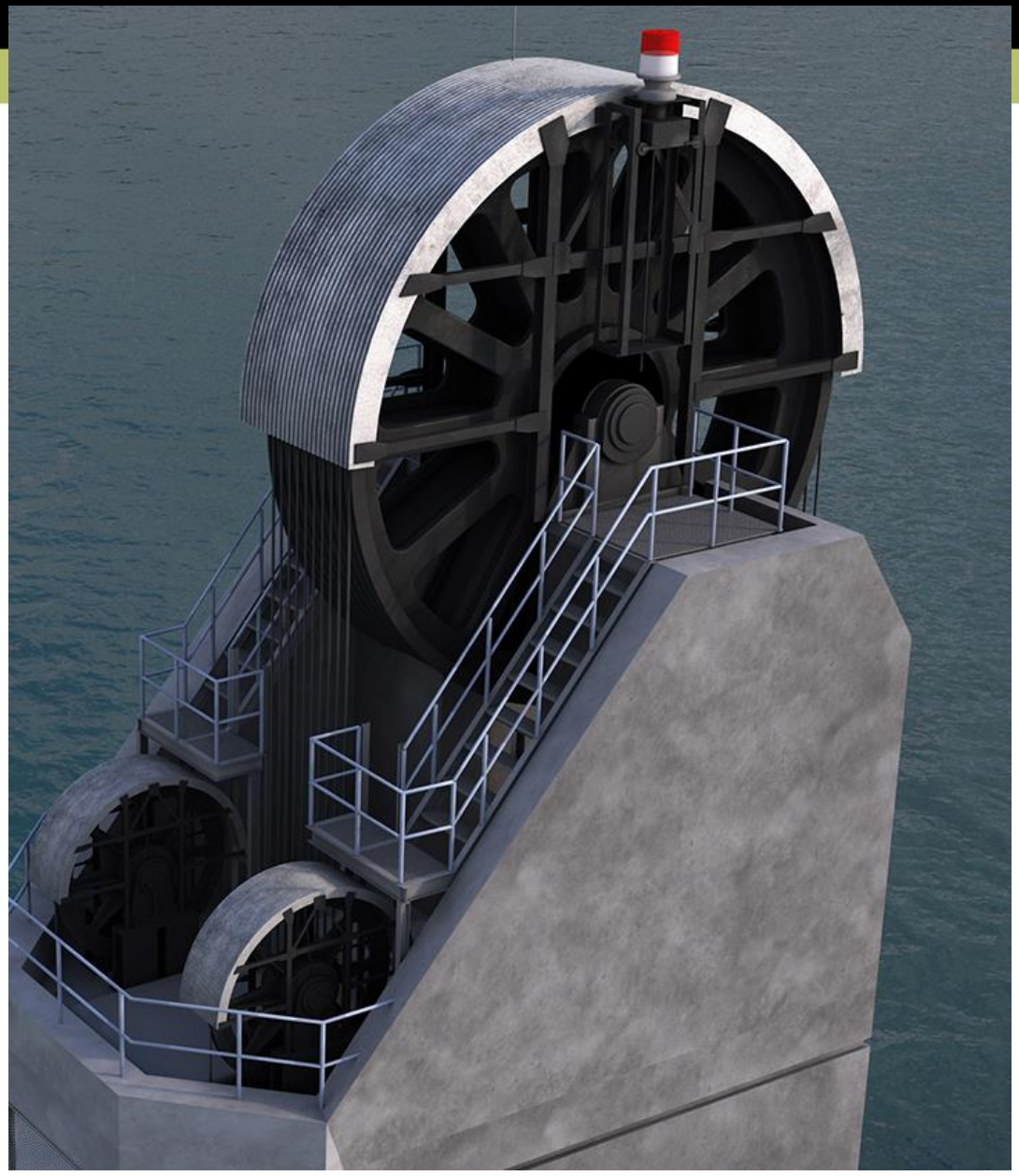
- Selected Theme – Local Simplicity of the Working Waterway
- Selected Open Bridge Railing
- Selected Pier Shape
- Evolved Preferences for Tower Concepts & Bridge Lighting

Movable Bridge - View from Water

Lift Tower Cross Section Shape



Lift Tower – Open Top with Sheave



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Lift Tower - Driver's Perspective Glass Panels on Face above Deck

Bridge Lighting

Existing SML Bridge has roadway lighting

NEW Bridge will also have roadway lighting using current LED (Light Emitting Diodes) Technology

Tower Lighting
on Sheaves & Behind Glass

Tower Lighting
on Sheaves & Behind Glass

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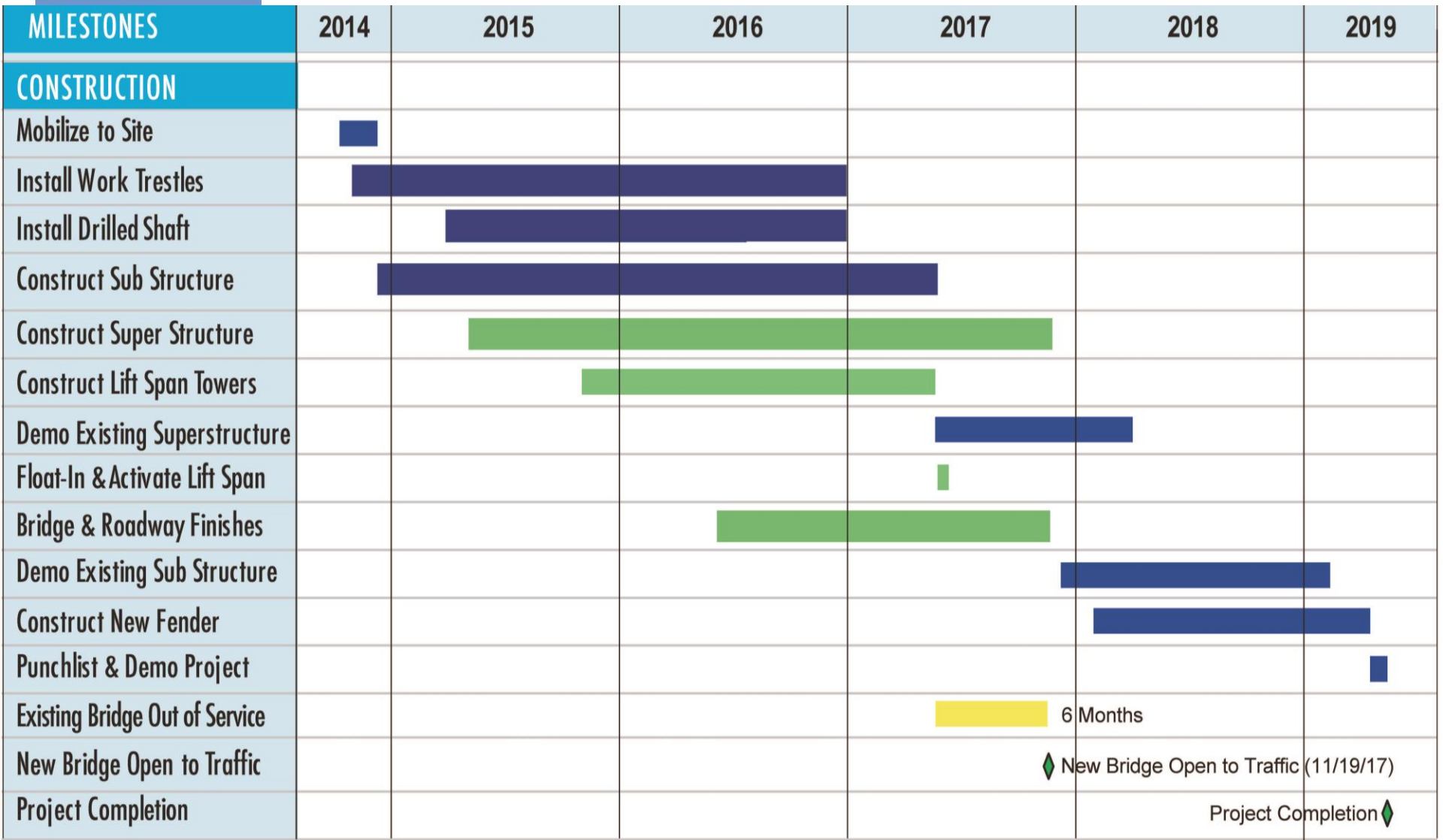
DRAFT Construction Schedule



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Schedule Goal:
Start Construction - Fall 2014
Open to Traffic – August 2017

THANK YOU